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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/379,646	08/23/1999	DAVID M. LILENFELD	FM-1999:01	1549

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EXAMINER

NGUYEN, JIMMY H

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 07/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/379,646

Applicant(s)

LILENFELD, DAVID M.

Examiner

Jimmy H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 20-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 08 May 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities: line 15, "hand;" should be changed to -- hand; and --, so as to improve the claimed form to conform with U.S. claim practice. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim above, when this claim is read together with independent claim 20, this claim recites the roller ball located at two locations, one at the upper left portion of the body (see claim 20, line 8) and another at the upper right portion of the body (see claim 22, line 1-2). Thus, it is not clear the claimed invention as specified in claim 22 reciting the roller ball located at the upper left portion or the upper right portion of the body.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 20, 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al. (USPN: 5,578,817) and further in view of Jarlance-Huang (USPN: 5,668,574, cited in IDS filed on 08/23/99).

As per claims 20-21, Bidiville et al. disclose a trackball (as shown in figa. 20A and 20D) (corresponding to the claimed cursor control device) comprising a body including an elevated upper housing (2005) (corresponding to the claimed convex palm surface) and a lower housing (2010) (corresponding to the claimed substantially flat underside); a ball (710) (corresponding to the claimed roller ball); buttons (2020A and 2020C) corresponding to the claimed first and second keys; and a line interface (560) (fig. 5A and col. 12, lines 10-13; or a standard serial communications such as RS 232, col. 5, lines 41-51) (corresponding to the claimed communicator). Further, as noting in figure 20a, Bidiville et al. also teach each key occupying the forward side of the body and the roller ball considerably mounted at the upper left portion of the body. As noting in fig. 20A and at col. 25, lines 5-11, Bidiville et al. further teach the ball actuated by the user's thumb and the buttons actuated by the user's fingers. Accordingly, Bidiville et al. disclose the claimed subject matter except that Bidiville et al. are silent to the ulnar fingers of user's hand wrapping around the side of the body and under the body to hold the device in the hand during actuating the roller ball and the button.

However, one skilled in the art would obviously recognize that Bidiville et al.' trackball obviously permits the thumb to actuate or to rest naturally over the ball, while also permitting the index and center fingers to activate a button and the ulnar fingers to wrap around the side of the body and under the body, since the trackball is operable in an enviroment without a work surface, i.e, the trackball is held in the user's hand. Furthermore, to remedy the deficiency in the

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reference of Bidiville et al., Jarlance-Huang teaches a related ergonomic trackball device permitting the user's thumb to actuate the ball (3), while also permitting the user's finger to activate a button (4b) and the ulnar fingers to wrap around the side of the body and under the body (see fig. 2).

It would have been obvious to one skilled in the art to utilize Jarlance-Huang's teaching to remedy the deficiency of Bidiville et al. because this would provide the user ergonomically and comfortably holding and operating the device, as taught by Jarlance-Huang (col. 1, lines 4-14). Therefore, it would have been obvious to combine Jarlance-Huang with Bidiville et al. to obtain the invention as specified in claims above.

As per claim 23, Bidiville et al. disclose the trackball further comprising a third button (2020B) (see fig. 20A), but do not disclose expressly the scroll wheel. However, a scroll wheel disposed between the enter key and the drag key, for permitting the up and down scrolling of windows is well-known to one skilled in the art (see specification of the pending application, page 17, lines 21-22). It would have been within the level skill in the art to substitute the middle key of Bidiville et al. for the known scroll wheel because this would allow a user easily to scroll the windows on the computer screen up and down, as known by one skilled in the art. This claim is therefore rejected for the reason as set forth above.

6. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bidiville et al. in view of Jarlance-Huang, as applied to claim 20 above, and further in view of Koh et al. (USPN: 5,122,654).

As per claim above, as discussed in claim 20 above, Bidiville et al. disclose the roller ball (710) located at the upper left portion of the device (see fig. 20A), but do not disclose the roller

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ball located at the upper right portion of the device. Accordingly, Bidiville et al. in view of Jarlance-Huang disclose the claimed subject matter except the ball located at the right portion of the device.

However, Koh et al. disclose a related trackball device comprising the roller ball located to the left portion of the device, so as to allow the right-handed user to ergonomically use (fig. 1, col. 3, lines 1-5), or the roller ball located to the right portion of the device so as to allow the left-handed user to ergonomically use (fig. 4, col. 4, lines 13-14). Furthermore, it would have been an obvious matter of design choice to relocate the ball of Bidiville et al. to the right portion of the device because this would allow the left-handed user ergonomically to use, and since a such modification would have involved a mere change in the location of a component. A change in location is generally recognized as being within the level of ordinary skill in the art **In re Japikse, 86 USPQ 70 (CCPA 1950)** and as being taught by Koh et al. Therefore, it would have been obvious to combine Koh et al. and Jarlance-Huang with Bidiville et al. to obtain the invention as specified in claim above.

Response to Arguments

7. Applicant's arguments with respect to new claims have been considered but are moot in view of the new ground(s) of rejection.

In response to applicants' argument that the reference fails to show certain features of applicants' invention, it is noted that the features upon which applicants state "the ulnar fingers wrap around and under the body to hold the device in user's hand", page 8, lines 3-5, is not recited in the cancelled claims filed in the previous amendment. Although the claims are

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interpreted in light of the specification, limitations from the specification are not read into the claims.

Applicant's argument filed "the roller balls in Koh and Bidiville are not located at the upper portion of the body, but at the mid-points ... figures 20A-E)", page 8, lines 13-15, has been considered, but it is not persuasive because Bidiville et al. do not disclose the roller ball located at the mid-points, as asserted by the applicant, and as shown in fig. 20 A, the portion that the roller ball is disposed on is considered to be the upper left portion of the device.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy H. Nguyen whose telephone number is (703) 306-5422. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

JHN
July 19, 2002



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
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